

TRANSLATION

PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

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| Applicant's or agent's file reference P04-57 | FOR FURTHER ACTION | See Form PCT/IPEA/416 |
| International application No. PCT/JP2004/013092 | International filing date (day/month/year) 02.09.2004 | Priority date (day/month/year) 10.09.2003 |
| International Patent Classification (IPC) or national classification and IPC C08B37/00, B01F17/56 | | |
| Applicant SAN-EI GEN F.F.I., INC. | | |

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|---|
| 1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36. |
| 2. This REPORT consists of a total of 4 sheets, including this cover sheet. |
| 3. This report is also accompanied by ANNEXES, comprising: a. <input checked="" type="checkbox"/> (sent to the applicant and to the International Bureau) a total of 1 sheets, as follows: <input checked="" type="checkbox"/> sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions). <input type="checkbox"/> sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box. b. <input type="checkbox"/> (sent to the International Bureau only) a total of _____, containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions). |
| 4. This report contains indications relating to the following items: <input checked="" type="checkbox"/> Box No. I Basis of the report <input type="checkbox"/> Box No. II Priority <input type="checkbox"/> Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability <input type="checkbox"/> Box No. IV Lack of unity of invention <input checked="" type="checkbox"/> Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement <input type="checkbox"/> Box No. VI Certain documents cited <input type="checkbox"/> Box No. VII Certain defects in the international application <input type="checkbox"/> Box No. VIII Certain observations on the international application |

| | |
|---|-----------------------------------|
| Date of submission of the demand | Date of completion of this report |
| Name and mailing address of the IPEA/JP | Authorized officer |
| Facsimile No. | Telephone No. |

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/JP2004/013092

Box No. I Basis of the report

1. With regard to the language, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.

- ☐ This report is based on translations from the original language into the following language _____ which is the language of a translation furnished for the purposes of:
- ☐ international search (Rule 12.3 and 23.1(b))
 - ☐ publication of the international application (Rule 12.4)
 - ☐ international preliminary examination (Rule 55.2 and/or 55.3)

2. With regard to the elements of the international application, this report is based on *(replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report)*:

- ☐ the international application as originally filed/furnished
- ☒ the description:

pages 1-28 as originally filed/furnished

pages* _____ received by this Authority on _____

pages* _____ received by this Authority on _____

- ☒ the claims:
- nos. 3-16 as originally filed/furnished

nos.* _____ as amended (together with any statement) under Article 19

nos.* 1 received by this Authority on 01.08.2005

nos.* _____ received by this Authority on _____

- ☒ the drawings:
- sheets fig. 1-6 as originally filed/furnished

sheets* _____ received by this Authority on _____

sheets* _____ received by this Authority on _____

- ☐ a sequence listing and/or any related table(s) – see Supplemental Box Relating to Sequence Listing.

3. ☒ The amendments have resulted in the cancellation of:

☐ the description, pages _____

☒ the claims, nos. 2

☐ the drawings, sheets/figs _____

☐ the sequence listing (specify): _____

☐ any table(s) related to sequence listing (specify): _____

4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).

☐ the description, pages _____

☐ the claims, nos. _____

☐ the drawings, sheets/figs _____

☐ the sequence listing (specify): _____

☐ any table(s) related to sequence listing (specify): _____

* If item 4 applies, some or all of those sheets may be marked "superseded."

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/JP2004/013092

| Box No. V | Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement | | |
|---|---|----------------|-----|
| 1. Statement | | | |
| Novelty (N) | Claims | <u>1, 3-16</u> | YES |
| | Claims | <u></u> | NO |
| Inventive step (IS) | Claims | <u>1, 3-16</u> | YES |
| | Claims | <u></u> | NO |
| Industrial applicability (IA) | Claims | <u>1, 3-16</u> | YES |
| | Claims | <u></u> | NO |
| 2. Citations and explanations (Rule 70.7) | | | |
| <p>The following documents are cited in the international search report.</p> | | | |
| <p>Document 1: JP 2000-166489 A (The Nisshin Oil Mills, Ltd.), 20 June 2000, entire text</p> | | | |
| <p>Document 2: JP 11-113486 A (The Nisshin Oil Mills, Ltd.), 27 April 1999, claims and paragraph [0008]</p> | | | |
| <p>Document 3: JP 58-183701 A (Soda Aromatic Co., Ltd.), 27 October 1983, entire text</p> | | | |
| <p>Document 4: JP 8-41104 A (Nakano Vinegar Co., Ltd.), 13 February 1996, claims</p> | | | |
| <p>(1)</p> | | | |
| <p>Document 1 discloses a feature whereby gum arabic with a drying loss of 50% by weight or less is heated to a temperature of 60 to 140°C under low pressure conditions in order to obtain modified gum arabic (claims and paragraph [0004]), and further indicates that said modified gum arabic suppresses coloration and exhibits a superior emulsification power (paragraph [0004] and the examples). However, document 1 does not disclose the feature wherein gum arabic is dried until the dry weight thereof is 3% or less or the feature wherein gum arabic</p> | | | |

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/JP2004/013092

Box No. V

Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability;
citations and explanations supporting such statement

with a dry weight of 3% or less is heated, and cannot be said to suggest the feature wherein gum arabic is dried until the dry weight thereof is 3% or less or the feature wherein gum arabic with a dry weight of 3% or less is heated in the light of the disclosures in the examples and the description, which indicate that the "starting material gum arabic that is used in the production of the modified gum arabic of the present invention has a dry weight of 50% by weight or less...and preferably 15% by weight or less. For example, it is possible for the starting material gum arabic in question to be a commercial gum arabic that has a powdered form, a granulated form or the like" (paragraph [0005]).

Consequently, the inventions that are set forth in claims 1 and 3 to 16 are novel and involve an inventive step in relation to the invention that is disclosed in document 1.

(2)

Documents 2 to 4 do not disclose or suggest the feature wherein gum arabic is dried until the dry weight thereof is 3% or less or the feature wherein gum arabic with a dry weight of 3% or less is heated.

Consequently, the inventions that are set forth in claims 1 and 3 to 16 are novel and involve an inventive step in relation to the inventions that are disclosed in documents 2 to 4.